

### ABSTRACT OF THE DISCLOSURE

In an internal combustion engine (10), exhaust gas leaves a combustion chamber (14) via at least one outlet valve (36) which is opened by an actuator after termination of a working stroke. A pressure value is determined, which characterizes the pressure of the gas in the combustion chamber during the working stroke. An actual value of the valve lift of the outlet valve (36) is determined, together with actual operating parameters of the internal combustion engine (10) which affect this opening stroke, and based on the determined actual valve lift of the outlet valve (36) and actual operating parameters of the internal combustion engine (10), an actual gas pressure in the combustion chamber (14) at the time of the opening of the outlet valve is calculated at least approximately.